

Rpt. 4b

Date of writing report 7th February, 1958 Received London 12 FEB 1958 Port KIEL No. 1956
Survey held at In shops 5 29th November, 1957 20th January, 1958
No. of visits On vessel First date Last date

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

Name MARGRETHE ROBBERT
No. in R.B. - Gross tons -
Owners - Managers - Port of Registry -
Hull built at Deest By Messrs. vander Werf Yard No. 275 Year Month
Main Engines made at Kiel-Friedrichsort By MaK Maschinenbau Kiel Aktienges. Eng. No. 10708 When 1958
Gearing made at - By -
Donkey boilers made at - By - Blr. Nos. - When -
Machinery installed at - By - When -
Particulars of restricted service of ship, if limited for classification -
Particulars of vegetable or similar cargo oil notation, if required -
Is ship to be classed for navigation in ice? - Is ship intended to carry petroleum in bulk? -
Is refrigerating machinery fitted? - If so, is it for cargo purposes? - Type of refrigerant -
Is the refrigerating machinery compartment isolated from the propelling machinery space? - Is the refrigerated cargo installation intended to be classed? -

The following particulars should be given as fully and as clearly as possible. Where the answer is "No" or "None", say so! Ticks and other signs of doubtful meaning are not to be used. Where the wording is not applicable to the installation, a black line may be inserted. If the main engines have been constructed at another port and are covered by a separate report, the particulars given in that report need not be repeated below, but the port and report number should be stated.

No. of main engines one No. of propellers - Brief description of propulsion system --
MAIN RECIPROCATING ENGINES. Licence Name and Type No. MaK - MSu 582 A
No. of cylinders per engine 6 Dia. of cylinders 385 mm stroke(s) 580 mm 2 or 4 stroke cycle 4 Single or double acting S.A.
Maximum approved BHP per engine 1150 at 300 RPM of engine and -- RPM of propeller
Corresponding MIP 8.51 (For DA engines give MIP top & bottom) Maximum cylinder pressure 55 kg/cm² Machinery numeral 1150 230
Are the cylinders arranged in Vee or other special formation? - If so, number of crankshafts per engine -

TWO STROKE ENGINES. Is the engine of opposed piston type? - If so, how are upper pistons connected to crankshaft? -
Is the exhaust discharged through ports in the cylinders or through valve(s) in the cylinder covers? - No. and type of mechanically driven scavenge pumps or blowers per engine and how driven -
No. of exhaust gas driven scavenge blowers per engine - Where exhaust gas driven blowers only are fitted, can the engine operate with one blower out of action? -
If a stand-by or emergency pump or blower is fitted, state how driven - No. of scavenge air coolers - Scavenge air pressure at full power - Are scavenge manifold explosion relief valves fitted? -

FOUR STROKE ENGINES. Is the engine supercharged? yes Are the undersides of the pistons arranged as supercharge pumps? - No. of exhaust gas driven blowers per engine one No. of supercharge air coolers per engine - Supercharge air pressure 0.4 ATM Can engine operate without supercharger? yes

TWO & FOUR STROKE ENGINES-GENERAL. No. of valves per cylinder: Fuel one Inlet one Exhaust one Starting one Safety one
Material of cylinder covers c.i. Material of piston crowns aluminium alloy Is the engine equipped to operate on heavy fuel oil? no
Cooling medium for :-Cylinders f.w. Pistons no Fuel valves no Overall diameter of piston rod for double acting engines -
Is the rod fitted with a sleeve? no Is welded construction employed for: Bedplate? c.i. Frames? c.i. Entablature? c.i. Is the crankcase separated from the underside of pistons? no
Is the engine of crosshead or trunk piston type? trunk Total internal volume of crankcase 7200 ltrs. No. and total area of explosion relief devices 6 - 564 cm² Are flame guards or traps fitted to relief devices? yes Is the crankcase readily accessible? yes If not, must the engine be removed for overhaul of bearings, etc? - Is the engine secured directly to the tank top or to a built-up seating? - How is the engine started? compr. air

Can the engine be directly reversed? yes If not, how is reversing obtained? -

Has the engine been tested working in the shop? yes How long at full power? 80 hrs.

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 23.4.56 -stated to be similar to MAK engs.10687+10690 State barred speed range(s), if imposed
or working propeller - For spare propeller - Is a governor fitted? yes Is a torsional vibration damper or detuner fitted to the shafting? no

Where positioned? - Type - No. of main bearings 7 Are main bearings of ball or roller type? - Distance between inner edges of bearings in way of crank(s) 483 mm Distance between centre lines of side cranks or eccentrics of opposed piston engines -

Crankshaft type: Built, semi-built, solid. (State which) solid
Diameter of journals 270 mm Diameter of crankpins Centre 265 mm Side 265 mm Breadth of webs at mid-throw 400 mm Axial thickness of webs 135 mm

shrunk, radial thickness around eyeholes 1500 mm Are dowel pins fitted? 1500 x kg Pins SM steel Minimum
Crankshaft material Journals SM steel Approved
Webs SM steel Tensile strength

Diameter of flywheel 1500 mm Weight 1580 kg Are balance weights fitted? yes Total weight 4 - 436 kg Radius of gyration 435

Diameter of flywheel shaft - Material - Minimum approved tensile strength -
Flywheel shaft: separate, integral with crankshaft, integral with thrustshaft. (State which) integral with crankshaft

GENERAL REMARKS

State if the machinery has been constructed and/or installed under special survey in accordance with the Rules, approved plans and Secretary's letters. State quality of materials and workmanship and recommendations for classification, including any special notation to be assigned. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.

This engine has been built under special survey in accordance with the Secretary's letters, approved plans and the Rules. The material and workmanship are good and when examined on the test bed under full load, the engine was found in order.

The engine is eligible, in my opinion, for installation in a classed vessel with notation of **ELM C**.

Reper Thomas
Engine Surveyor to Lloyd's Register of Shipping

PARTICULARS OF IDENTIFICATION MARKS ((Including Port of origin) of important Forgings and Castings. (Copies of certificates should be forwarded with report.)

RODS

CRANKSHAFT ~~OR ROTOR SHAFT~~ LLOYD'S DSF 878 15.2.57 KB

FLYWHEEL SHAFT

THRUST SHAFT

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS Cylinder Block: LLOYD'S KEL No. 2469 10 kg/cm² 5.12.57 AK
Control Station: LLOYD'S KEL No. 2469 20.1.58 AK

Is the installation a duplicate of a previous case?

If so, state name of vessel

Date of approval of plans for crankshaft 6.1.55

Straight shafting

Gearing

Clutch

Separate oil fuel tanks

Pumping arrangements

Oil fuel arrangements

Cargo oil pumping arrangements

Air receivers

Donkey boilers

Dates of examination of principal parts:—

Fitting of stern tube

Fitting of propeller

Completion of sea connections

Alignment of crankshaft in main bearings 5.12.57

Engine chocks & bolts

Alignment of gearing

Alignment of straight shafting

Testing of pumping arrangements

Oil fuel lines

Donkey boiler supports

Steering machinery

Windlass

Date of Committee

FRIDAY 23 MAY 1958

Construction
Special Survey Fee

£ 94, 0. 0

Decision

See Rpt. 1

test bed trials 7. 0. 0

Expenses

2.10. 0

Date when A/c rendered



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